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| **Lesson Title: Tagging for TCAP-Potential and Kinetic Energy** |
| **Subject area / course / grade level: 5th grade Science and Language** |
| **Introduction:**  **Brain Pop Videos**  **1. Potential and Kinetic Energy**  **2. Potential Energy**  **3. Kinetic Energy** |
| **Lesson Length: 4 hours** |
| **Materials:** Chart paper or Butcher paper, pencils, pens, markers, rulers, highlighters, TCAP Coach book pgs.101-109, videos, Flip cameras |
| **Lesson Overview:**  This lesson focuses on Kinetic and Potential Energy. The students will also have the opportunity to experience kinetic and potential energy in the real world using the Flip Video Camera, and allow them to relate their new science knowledge to their life. The students will be shown several multi-media presentations to reinforce the science content. Journaling about observations will allow the students to keep a record of the information they are being presented, and observing throughout the lesson. |
| **Tennessee Standards:**  **Language Arts:**  1. Demonstrate confidence and poise in various speaking situations  2. Demonstrate critical listening skills essential for comprehension and evaluation  3. Engage in problem solving through group discussions  4. Present and support ideas/opinions in group discussions  5. Demonstrate appropriate language structure, tone and voice control in oral communication  **Science:**  1. Differentiate between potential and kinetic energy.  2. Use data from an investigation to determine the method by which heat energy is transferred from one  object to another.  3. Organize data into appropriate tables, graphs, drawings, or diagrams.  4. Design an experiment to illustrate the difference between potential and kinetic energy. |
| **Lesson objective(s):**  Identify when an objects potential and kinetic energy are increasing and decreasing.  Explain the relationship between the amount of potential and kinetic energy in real life situations.  Describe a real life situation and explain how potential and kinetic energy are involved. |
| **ENGAGEMENT:**  The video of the Roller Coaster will create an eagerness and excitement for learning**. Be sure to MUTE the video, and stop it after the roller coaster ride is over.** The students will watch the roller coaster video on QuickTime. After the video, the students will then create a journal entry about what they observed. |
| **EXPLORATION: Visual Imagery, Venn Diagram, and Knowledge Rating.**  TSW will display their knowledge of potential and kinetic on their group’s graffiti board. The students will not be allowed to use their books as a guide. The graffiti boards will prompt students to: select the best means to share their ideas and thoughts, build upon other students’ ideas or thoughts, use think time before recording their ideas, be creative in their responses, and record their prior knowledge before reading/writing a text. |
| **EXPLANATION**  Think-Pair Share, Text Connections |
| **ELABORATION**  **Discussion Web** |
| **EVALUATION: Graffiti Boards**  TSW will display their knowledge of potential and kinetic on their group’s graffiti board. The students will not be allowed to use their books as a guide. The graffiti boards will prompt students to: select the best means to share their ideas and thoughts, build upon other students’ ideas or thoughts, use think time before recording their ideas, be creative in their responses, and record their prior knowledge before reading/writing a text. |